SE-HSIN-35-SN-C High Speed Air Ionizer — Standard Nozzle

Compact 24 V DC ionized-air nozzle for spot cleaning and static elimination in machines and automated systems



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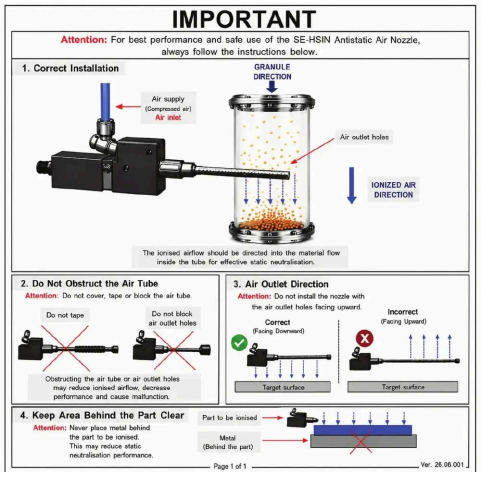
1 Important — installation

For best performance and safe use of the SE-HSIN antistatic air nozzle, always follow the instructions below.

- Correct installation: direct the ionized airflow into the material flow inside the tube for effective static neutralisation.
- Do not cover, tape or block the air tube or the air outlet holes. Obstructing them may reduce the ionized airflow, decrease performance and cause malfunction.
- Do not install the nozzle with the air outlet holes facing upward; install it with the holes facing downward, towards the target.
- Never place metal behind the part to be ionized. This may reduce static neutralisation performance.



Correct installation of the SE-HSIN

2 Intended use

The SE-HSIN series antistatic air nozzle is designed for use in industrial environments where electrostatic charges and surface contamination must be controlled. It neutralises static electricity and removes dust, particles and other contaminants from target surfaces by means of ionized compressed air.

It is suitable for electronics manufacturing, plastic processing, packaging, printing, optical inspection systems and other industrial processes where static electricity may affect product quality, productivity or process reliability.

3 Operating limits

The system must be operated within the limits specified in the technical data and in accordance with the technical specifications and installation instructions.

The system must be used in such a way that no persons are endangered and no machines or other material goods are damaged in the event of a malfunction or total failure of the system. Take additional precautions for safety and damage prevention in safety-related applications.

4 Technical information

Product code	SE-HSIN-35-SN-C (standard nozzle)
Power supply	24 V DC via M12 connector · 0.4 A · max. 9 W
Air connection	6 mm hose
Air pressure — dry filtered air	6 bar
Inlet pressure	6 bar
Compressed air consumption	320 L/min (changes with the nozzle attached)
Air flow speed	14 m/s (changes with the nozzle attached)
Inline lance (nozzle tube)	Perforated tube on the hose connection adapter · 100 / 150 / 200 / 250 / 300 mm (FG-AC-0070 … FG-AC-0074)
Noise level	83 dB (changes with the nozzle attached)
Cable	4-pin M12 cable (sold separately)
Power connector	M12, 5-pin male — use a 4-pin M12 cable
Status LEDs	H.V · OK · Status · Power

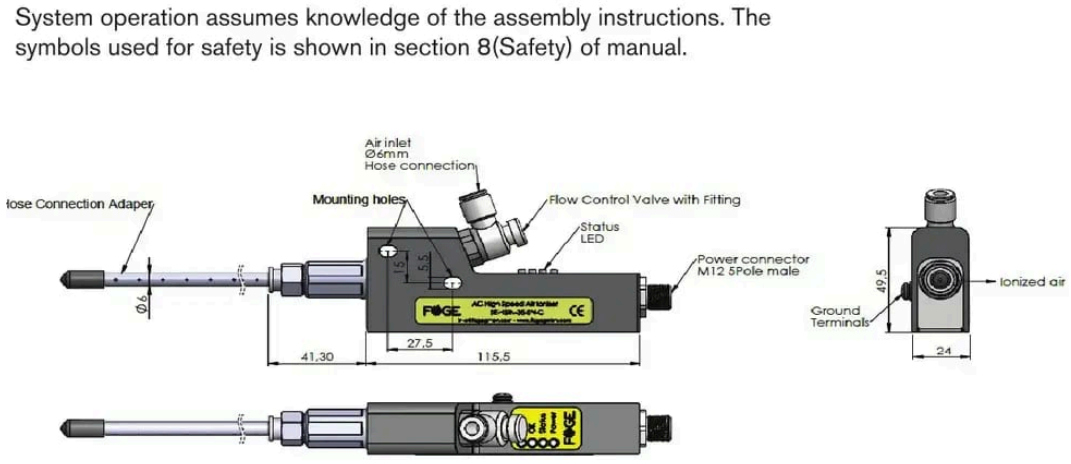
Emitter	Tungsten — long life
Housing dimensions	115.5 × 24 × 49.5 mm (without hose adapter)
Environment	Clean, dry and oil-free · 0 – 50 °C · 70 % rH non-condensing max.
Safety	Shockless, pin current < 250 µA · transformer current max. 5 mA (with fuse)
EMC compliance	2014/30/EU — EMC Directive
Electrical safety	2014/35/EU — Low Voltage Directive

5 Installation

Operating the system requires knowledge of the assembly instructions. The signal words used are explained in the section Safety.

The SE-HSIN is equipped with an adjustable mounting bracket; the slotted design allows easy position adjustment. Connect the supplied grounding cable to the grounding point on the front side of the device. Proper grounding is required for safe operation and reliable performance.

Ordering code	Accessory
FG-AC-0070	Hose connection adapter 100 mm
FG-AC-0071	Hose connection adapter 150 mm
FG-AC-0072	Hose connection adapter 200 mm
FG-AC-0073	Hose connection adapter 250 mm
FG-AC-0074	Hose connection adapter 300 mm
FG-AC-0075	Mounting bracket



Dimensions



Mounting bracket

6 Grounding connection

Connect the supplied grounding cable to the grounding point on the front side of the device, as shown below. Attach the cable lug securely under the grounding screw.

⚠ Proper grounding is required for safe operation and reliable device performance.

- Use the supplied grounding cable.
- Make sure the grounding connection is securely tightened.
- Check that the grounding cable is properly connected before operation.



Grounding point and correct installation

7 Electrical connection

⚠ Do not connect or disconnect the connector while power is applied. Doing so may damage the product.

- Supply: 24 V DC via the M12 connector, 0.4 A, max. 9 W.
- Pin assignment as in the dimensional drawing: 1 +24 V DC, 2 not used, 3 GND, 4 not used, 5 protective earth (PE).
- Connect the ground cable first, before applying power.
- Make sure all connections are secure and properly tightened. Incorrect wiring may cause malfunction or damage.

Pin	Function
1	+24 V DC (brown)
2	Not used (white)
3	24 V – / GND (blue)
4	Not used (black)
5	Protective earth, PE (yellow/green)

8 Faults

- Do not open the product in any of the cases below or in any other case.
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9 Warnings

- Connect the power supply and the display/output device according to the safety regulations for electrical equipment.
- The supply voltage must not exceed the specified limits.
- Avoid shocks and impacts to the device.
- Protect the cable against damage.

Possible consequences of non-observance: risk of injury by electric shock; damage to or destruction of the device.

10 Maintenance

Due to the ionization process, airborne particles stick to the emitter pins and carbonise. This reduces ionization performance. All AC and DC ionizing bars must be checked and cleaned regularly with the FÖGE Antistatic Products Maintenance Kit (cleaning fluid and brushes).

The cleaning interval depends on the process and the environment.

⚠ Switch the device OFF before cleaning and do not switch it ON again until it is dry.

1. Clean the static control device with the FÖGE cleaning brush.
2. Attach a spray head to the bottle containing the cleaning fluid.
3. Moisten a cloth with cleaning fluid and wipe the static control device, taking care around the emitters.
4. Repeat brushing and cleaning until the static control device is clean.
5. Carefully polish the pins with a dry cloth.

11 Safety

Operating the system requires knowledge of the assembly instructions. The following signal words are used in these instructions:

Signal word	Meaning
WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
NOTICE	Indicates a situation that may result in property damage if not avoided.
ELECTRIC SHOCK	Indicates a risk of electric shock if the instructions are not followed.

12 Liability for material defects

All components of the device have been checked and tested for functionality at the production facility. If defects occur despite our careful quality control, FÖGE or your dealer must be notified immediately.

The liability for material defects is 12 months from delivery. Within this period, defective parts, except wearing parts, are repaired or replaced free of charge if the device is returned to FÖGE with shipping costs prepaid. Damage caused by improper handling, the use of force, or repairs or modifications by third parties is not covered. Repairs are carried out exclusively by FÖGE.

Further claims cannot be made. Claims arising from the purchase contract remain unaffected. In particular, FÖGE shall not be liable for any consequential, special, indirect or incidental damage. In the interest of further development, FÖGE reserves the right to make design changes without notice.

13 Decommissioning and disposal

Disconnect the power supply and the output cable from the device.

Incorrect disposal may harm the environment. Dispose of the device, its components and accessories, and the packaging materials in compliance with the waste treatment and disposal regulations applicable in the country and region of use.